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EASE OF DOING BUSINESS IN EUROPEAN UNION COUNTRIES AND CANDIDATES

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Abstract

Doing business attracts the attention of policy makers as its economic impact. It's now widely accepted the relationship between regulations and economic performance. By making regulations, countries want to attract domestic and foreign investors to their countries to invest and to facilitate doing business. The study's goal is to investigate whether EU membership has an impact on doing business. For this purpose, the Ease of Doing Business Index data used in the analysis phase were published from the World Bank. To investigate EU membership effect on doing business, MANOVA and discriminant analysis were conducted. MANOVA results show that, only getting electricity, getting credit and resolving insolvency factors differ according to EU membership status. Furthermore, the impact of membership status on the resolving insolvency factor is the highest. After MANOVA, discriminant analysis was conducted. The correct classification rate is 87.5%. Discriminant analysis results reveal that resolving insolvency, getting credit, getting electricity, and starting a business are the most effective factors on EU membership, respectively.

Keywords: *EU membership, Ease of doing business, MANOVA, Discriminant analysis.*

AVRUPA BİRLİĞİ ÜYE VE ADAY ÜLKELERDE İŞ YAPMA KOLAYLIĞI

Öz

İş yapmak, ekonomik etkisi nedeniyle politika yapıcıların dikkatini çekmektedir. Düzenlemeler ve ekonomik performans arasındaki ilişki artık yaygın olarak kabul edilmektedir. Ülkeler düzenlemeler yaparak yerli ve yabancı yatırımcıları yatırım yapmak için ülkelerine çekmek ve iş yapmayı kolaylaştırmak istemektedir. Çalışmanın amacı, AB üyeliğinin iş yapma üzerinde bir etkisi olup olmadığını araştırmaktır. Bu amaçla analiz aşamasında kullanılan İş Yapma Kolaylığı Endeksi verileri Dünya Bankası'ndan elde edilmiştir. AB üyeliğinin iş yapma üzerindeki etkisini araştırmak için MANOVA ve diskriminant analizi yapılmıştır. MANOVA sonuçları, sadece elektriğe ulaşma, kredi alma ve iflasın çözülmesi faktörlerinin AB üyelik durumuna göre farklılık gösterdiğini ortaya koymaktadır. Ayrıca, üyelik durumunun iflasın çözülmesi faktörü üzerindeki etkisi en yüksektir. MANOVA'dan sonra diskriminant analizi yapılmıştır. Doğru sınıflandırma oranı %87,5'tir. Diskriminant analizi sonuçları, AB üyeliği üzerinde en etkili faktörlerin sırasıyla iflasın çözülmesi, kredi alma, elektriğe ulaşma ve iş kurma olduğunu ortaya koymaktadır.

Anahtar kelimeler: *AB üyeliği, İş yapma kolaylığı, MANOVA, Diskriminant analizi.*

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1. INTRODUCTION

It's now widely accepted that regulations and institutions have a huge impact on a country's economic performance. Numerous empirical studies illustrated that regulations are important for investments and entrepreneurship (Nnadozie and Njuguna, 2011; Alshammari, Hammoudeh and Pavlovic, 2015; Corcoran and Gillanders, 2015; Canton and Petrucci, 2017; Contractor et al, 2020; Radulović, 2020; Vučković et al. 2020). Moreover, the relationship between The World Bank's Ease of Doing Business Index (EDBI) and economic performance has been also revealed. Improvements in business regulations and public administration quality enhance economic growth and employment (Canton and Petrucci, 2017). Reducing the number of days and procedures and developing business rules and regulations to promote high productivity will improve the investment environment and that allows economies to flourish (Nnadozie and Njuguna, 2011). Regulation quality has a huge impact on foreign direct investment inflows (FDI) (Alshammari, Hammoudeh and Pavlovic, 2015) and the quality of institutions and economic growth have a long-term and short-term link (Radulović, 2020). Multinational enterprises make long-term plans when they plan to invest in a country. The ease of entry into and exiting from a country, and the profit potential in that country significantly affect that enterprises' plans (Contractor et al, 2020). On the other hand, weak regulatory environments have a detrimental impact on employment, investment, and living standards. This could increase the cost of doing business (Besley, 2015). Therefore, a country should organize its institutions well and make it easy to do business with its regulations.

The primary goal of the World Bank in the 1990s was to encourage investment by securing loans and supporting private financing. The World Bank then began to focus on the root cause of underinvestment: too burdensome business regulations (Rogge and Archer, 2021). For this purpose, the World Bank launched EDBI. EDBI has been published annually since the early 2000s and provides a measure of institutional quality as a reference for a country's effectiveness in encouraging a business environment and examines factors of business regulation that influence small domestic enterprises in the worldwide (World Bank, 2020; Rogge and Archer, 2021). Asongu and Odhiambo (2019) highlighted six main points to show the relationship between doing business and economic development:

- A comprehensive economic development strategy is built on market-oriented economic policies that provide favorable conditions for doing business in the domestic market.
- Doing business can help to a country's improvement of living conditions.
- Doing business naturally creates favorable conditions for higher GDP and GDP per capita growth
- Incentives for entrepreneurs to locate and develop their firms in less developed areas and regions might be provided.
- Doing business helps to the development and distribution of wealth.
- Doing business also helps to increase the employment through job creation.

The latest released EDBI consists of ten pillars and largest business city of 190 economies. Over 48,000 professionals from 190 economies contributed data for the EDBI indices (World Bank, 2020). The pillars and their description are given in Table 1.

Table 1. EDBI Pillars and measurements

Pillar	What is measured?
Starting a business (v1)	Procedures, time, cost, and paid-in minimum capital to establish a limited liability company.
Dealing with construction permits (v2)	Procedures, time, and cost to complete all formalities for constructing a warehouse, as well as quality control and safety procedures in the building permits system
Getting electricity (v3)	Procedures, time, and cost to connect to the electrical grid; the reliability of the power supply; and tariff transparency
Registering property (v4)	Procedures, duration, and expense of transferring a property, as well as the quality of the land administration system
Getting credit (v5)	Laws governing movable collateral and credit information systems
Protecting minority investors (v6)	Rights of minority shareholders in related-party transactions and corporate governance
Paying taxes (v7)	Payments, time, total tax and contribution rate, and post filing processes for a company to comply with all tax requirements.
Trading across borders (v8)	Time and expense of exporting the competitive advantage product and importing auto parts
Enforcing contracts (v9)	The length of time and money required to resolve a commercial issue, as well as the quality of judicial proceedings
Resolving insolvency (v10)	Time, cost, outcome, and recovery rate for commercial insolvency, as well as the soundness of the insolvency legal framework

Source: World Bank, 2020

There are 27 EU member states with the Brexit. Moreover, the negotiations are still ongoing with five candidate and two potential candidate countries. EU membership strengthens a country's economic conditions more credible and durable (Pelkmans and Casey, 2003). Compared to candidates, EU members have a richer and more stable economies. Moreover, all the candidate countries have infrastructure problems as well as their economic problems. Nevertheless, economy of the EU has struggled, and unemployment has risen in recent years (Bahhouth and Ziemnowicz 2019). The EU membership process requires regulations in many areas such as economic, political, energy areas. Making the regulations does not guarantee membership. However, it can be expected that the member and the candidate countries share some similarities within the scope of the regulations. The aim of the study is to determine whether EU membership has an effect in terms of doing business. The paper is structured as follows: In the next section, the related literature is briefly discussed. Then, the research design, scope of the study, data and the methods used in this study are explained. Later, the results of the analysis are presented. Finally, these results are discussed.

2. PREVIOUS RESEARCH

EDBI measures differences in economic performance between countries based on regulatory policies (Bajra, Halili and Berisha, 2020). EDBI is widely regarded as a reputable source of business information and its significance stems from its theoretical rationale and vast application. (Pinheiro-Alvesa and Zambujal-Oliveira, 2012). In addition to being a data source, EDBI has also a considerable impact on current economic and political decisions (Besley, 2015). EDBI has persuaded governments to alter their regulatory and economic policies in order to fulfill the World Bank's expectations (Doshi, Kelley and Simmons, 2019). For example, Russian President Vladimir Putin set a target in 2012 to improve the country's Doing Business ranking from 120th to 20th by 2018 (Bryanski, 2012). Moreover, India (Gaur and Jasmin, 2017), Poland and Georgia (Piwonski, 2010) use the index to promote their policies. On the contrary, Pinheiro-Alves and Zambujal-Oliveira (2012) suggested that EDB should not be used in decision making as it has poor consistency and descriptive power.

Kersan-Škabić and Tijanić (2009) shared a result from Global Competitiveness Report. According to the result, the most three problematic factors for doing business in Southeast European Countries are as follows: foreign currency regulations, inflation and, crime and theft. The trade barriers show a decreasing trade with the EU membership. Trade liberalization affect counties' economy positively herewith (Stanojević and Veličković, 2019). Rogge and Archer (2021) indicate that there are significant differences between regions in the EDB index. For

example, the EDBI scores of the EU members vary considerably over the years, as of the years of membership. Joining the European Union as a full member will have a significant positive impact on the process of resolving current issues for candidate countries. Moreover, the key conclusion that can be reached is that candidate countries need to increase their technology transfer in order to solve their trade deficits (Yilmaz and Jürgen, 2003). Non-EU members' institutional settings should be brought up to EU standards. Nurboja and Košak (2017) reported that members of the EU are more cost-effective than non-EU members in terms of banking. They found an improvement in efficiency scores, particularly for Romania and Bulgaria since their EU membership in 2007. It is obvious that candidate countries have improved their economic situation, infrastructure, education, and health services during their EU accession process (Stanković, Džunić and Milić, 2019). The EU integration process and membership provides significant benefits to the economic performance and growth rate of the countries by significantly reducing the trade barriers of the candidate countries (Stanojević and Veličković, 2019). Stanković, Džunić and Milić (2019) reported that former members differed significantly from new member and candidate countries in most pillars of the GCI. On the contrary, it can be stated that there is not much difference between new members and candidate countries. While candidate countries performed better than 2007 members regarding health and primary education, 2007 members achieved a better score than candidate countries in the infrastructure component. Besides, old members strictly have better performance than other countries in terms of GDP.

There is a clear relationship between regulations and economic growth (Djankov, McLiesh and Ramalho, 2006; Haidar, 2012; Głodowska, 2017). Almost every additional reform leads to a 0.15 percent improvement in economic growth (Haidar, 2012). Countries should give priority to business regulation when determining their growth policies. (Djankov, McLiesh and Ramalho, 2006). Głodowska (2017) used EDBI to find out whether business environment has an effect on economic growth. The results obtained from regression analysis confirmed the relationship. Moreover, they reported that paying taxes affects economic growth the most in EU countries. High-income countries outperform the EDBI, particularly in terms of their infrastructure needs, access to finance, and the quality of policy-making institutions. Besides, it is clear that some indicators of EDBI have a positive effect on economic growth (Bajra, Halili and Berisha, 2020). For instance, Enforcing Contracts has a positive impact on FDI. On the contrary, Getting Credit and Registering Property have effect FDI negatively. Besides, starting a business and paying taxes have no effect on FDI (Hossain et al., 2018). In Poland, Slovenia, Bulgaria, Romania, and Serbia, it was found that starting a business, trading across borders, getting credit, getting electricity, enforcing contracts, and paying taxes factors have a significant impact on FDI (Vučković et al. 2020). Meanwhile FDI is most affected by the trade across border element, other factors have little or no effect on FDI. In addition, this effect is absent in Sub-Saharan Africa and the OECD countries (Corcoran and Gillanders, 2015). Nogueira and Madaleno (2021) conducted a cluster analysis. As a result of comparisons of clusters, they stated that EDBI affects GDP in Austria, Belgium, France, Germany, and Netherlands. Davletshin, Kotenkova and Vladimir (2015) also highlighted the relationship between EDBI and GDP. They stated that EDB pillars have an impact on GDP growth rate especially in developing countries. Piwonski (2010) conducted a regression analysis to demonstrate economic importance of EDB. If a country moves up one in the EDBI ranking, FDI would rise approximately $40 million.

There are not many studies in the literature that use MANOVA and classification methods to investigate EU members and candidates in terms of the EDBI. Moreover, any researchers have not made an attempt to classify EU members and candidates according to their membership status by using EDBI. This study takes a novel approach to establish how easy it is to do business in the EU.

3. DATA

In the study, the values of 32 EU member and candidate countries in the EDBI published in 2020 were used. EDBI was calculated for 190 economies by ten pillars: starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, and resolving insolvency (World Bank, 2020). 32 countries were divided into 3 groups consistent with their membership status: old member, new member, and candidate. Old member refers to the countries that joined the EU before 2004 and the new member refers to those that joined in and after 2004. Table 2 shows the membership status of each country and the EDBI ranking from 2016 to 2020. As can be seen from the Table 2 the best performers in terms of EDBI for the selected years are Denmark and Sweden while the worst ones are Albania and Malta.

Table 2. Countries' membership status and rankings in EDBI between 2016-2020

Country	Membership Status	2016	2017	2018	2019	2020
Albania	Candidate	32	32	31	31	31
Austria	Old Member	9	10	10	10	10
Belgium	Old Member	21	21	26	20	21
Bulgaria	New Member	20	25	27	28	28
Croatia	New Member	24	23	24	25	23
Cyprus	New Member	22	22	25	26	25
Czech Republic	New Member	14	14	14	16	17
Denmark	Old Member	1	1	1	1	1
Estonia	New Member	3	3	3	4	5
Finland	Old Member	4	7	8	7	7
France	Old Member	13	15	17	13	12
Germany	Old Member	6	8	9	9	8
Greece	Old Member	30	30	30	30	30
Hungary	New Member	25	26	23	23	24
Ireland	Old Member	5	6	6	8	9
Italy	Old Member	23	24	21	24	27
Latvia	New Member	7	4	7	6	6
Lithuania	New Member	8	9	4	3	3
Luxembourg	Old Member	28	29	29	29	29
Malta	New Member	31	31	32	32	32
Montenegro	Candidate	26	27	19	22	22
Netherlands	Old Member	16	16	16	17	18
North Macedonia	Candidate	10	5	5	5	4
Poland	New Member	11	11	11	12	16
Portugal	Old Member	12	13	13	14	15
Romania	New Member	19	20	22	27	26
Serbia	Candidate	27	19	20	21	19
Slovak Republic	New Member	17	18	18	18	20
Slovenia	New Member	18	17	15	15	14
Spain	Old Member	15	12	12	11	11
Sweden	Old Member	2	2	2	2	2
Turkey	Candidate	29	28	28	19	13

4. METHODS

In the current study, a country's membership status with three levels (Table 2) and EDBI pillars were used for both MANOVA and discriminant analysis. If there is only one measured response variable, analysis of variance (ANOVA) can be used to analyze the data. When there are multiple response variables to be measured, multivariate analysis of variance (MANOVA) is the most suitable method (Scheiner, 1993). MANOVA, an extension of ANOVA, is a technique for measuring differences between two or more metric dependent variables. This measurement based on a set of categorical variables that act like independent variables (Hair et al., 2009). Instead of using MANOVA, ANOVA can be conducted for each independent variable. However, this can cause the following problems: increases the possibility of making a Type I error, and inability to determine whether the independent variable(s) are related to combinations of dependent variables (Warne, 2014). MANOVA is used to compare differences between multiple dependent variables simultaneously (Tohidi et al., 2018). MANOVA is used to analyze the impacts of grouping variables. On the other hand, discriminant analysis is used to describe the MANOVA effects (Huberty and Petoskey, 2000). While there is a non-metric dependent variable and more

than one metric independent variable in discriminant analysis, it is the opposite in MANOVA analysis. In other words, MANOVA has one or more metric dependent variables and one or more non-metric independent variables (Albayrak, 2006). A discriminant analysis' goal is to categorize objects into one of two or more groups using at least one independent factors (Morrison, 1969). Discriminant analysis aims to classify an observation (or several observations) into foreknown groups. The misclassification can be used to evaluate the quality of a discriminant analysis (Härdle and Hlávka, 2015).

5. FINDINGS

Before applying MANOVA and discriminant analysis, correlation analysis was conducted for each group and whole dataset separately to see the relationship between the factors and EDBI (Figure 1). The highest relationship between the factors was between dealing with construction permits and enforcing contracts (r=0.47). This might confirm that there was no multicollinearity in the dataset that could be a problem like misleading results to conduct the discriminant analysis (Serrano-Cinca and Gutiérrez-Nieto, 2013). When correlation analysis was conducted with all countries, the factors with the highest relationship with EDBI were registering property and paying taxes, respectively. The strongest correlations with EDBI in old members were with getting credit and resolving insolvency. Registering property had the highest correlation with EDBI in new members and protecting minority investors in candidate countries. In new member and candidate countries, paying taxes ranked second in the highest relationship with EDBI as in all countries.

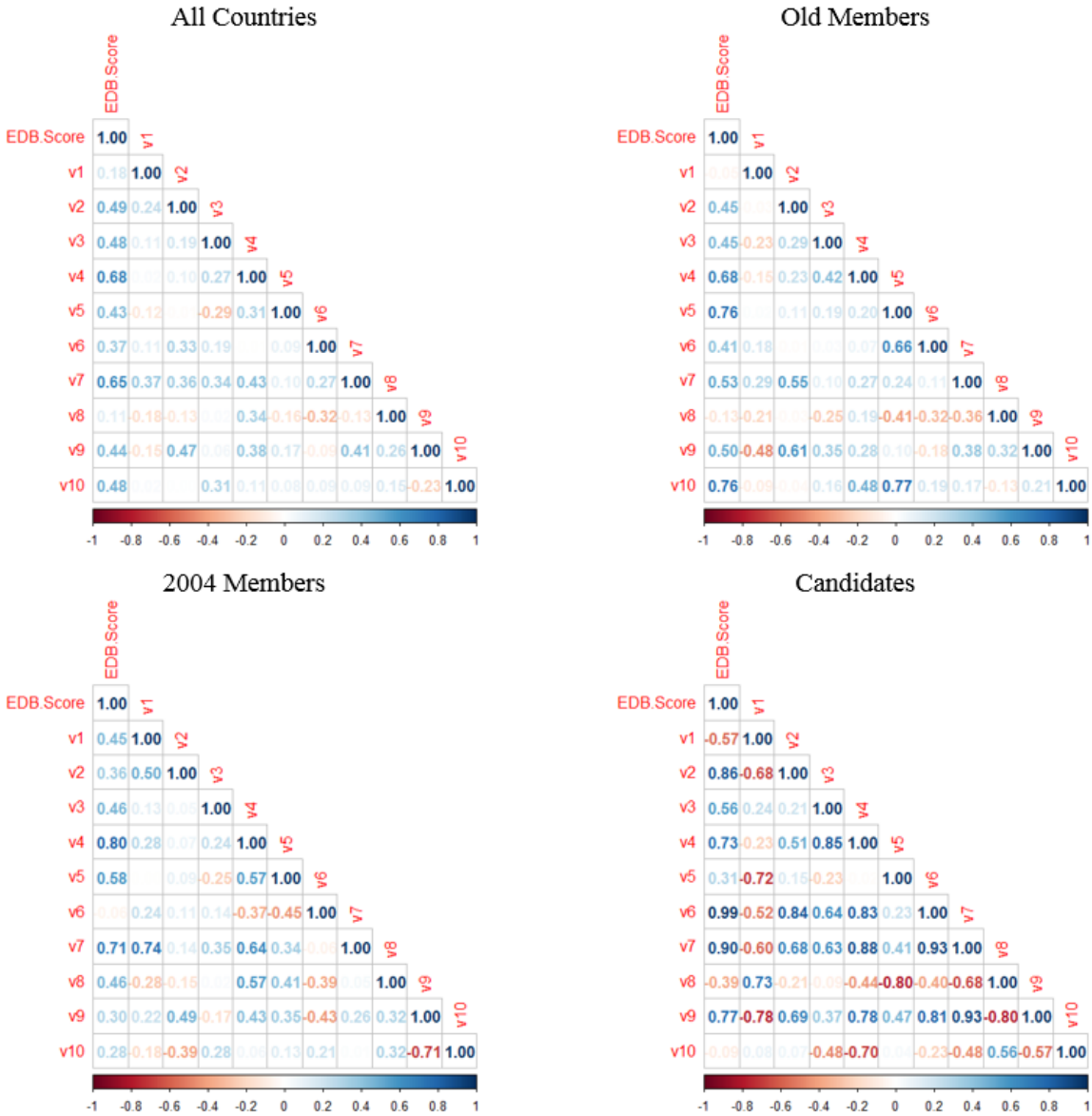

Fig1. Correlation plots

5.1. Assumptions

Before applying both analysis, normality and equal covariance matrices assumptions are required (Finch, 2005). In this research, Mardia's Test was used to check normality and Box-M for equal covariance matrices. Mardia's Test is widely used for checking multivariate normality. Unlike univariate normality, Mardia's Test takes into consider the relationship between variables (Liu and Lam, 1985). One can infer from the Table 3 that the multivariate normality was assessed (Korkmaz et al., 2014). After normality, equal covariances assumption was checked using Box's M test (Box's M= 221,859; p<0,0001). The results reveal that the equality of covariances was violated. Due to the violation of equality of covariances, Pillai's criterion was used for MANOVA. The advantage of Pillai's criterion in terms of robustness grows when sample size small and the assumption of homogeneity of variance-covariance matrices is violated (Tabachnick, Fidell and Ullman, 2012; Sarma and Vardhan, 2018). Moreover, the violation of the equality of covariances is not critical to conducting discriminant analysis (Brown and Wicker, 2000).

Table 3. Mardia's Test results

Test	Statistic	p-value
Mardia Skewness	242.818	0.139
Mardia Kurtosis	-0.575	0.565

5.2. MANOVA Results

Table 4 indicates that all of the MANOVA test statistics for the data were statistically significant. This significance means that membership status has a relationship with the factors (Warne, 2014). Pillai's Trace results showed that, countries scores at least in one variable differed according to their membership status (Table 4).

Table 4. MANOVA test statistics

Criterion	Value	F	Sig.	Partial Eta Squared
Pillai's Trace	,945	1,882	,042	,473
Wilks' Lambda	,244	2,051	,026	,506
Hotelling's Trace	2,326	2,210	,017	,538
Roy's Largest Root	1,923	4,037	,003	,658

Table 5 shows the descriptive statistics and MANOVA results for the variables. From the table, it is apparent that trading across borders was the variable that countries were the best at. Old members were the best performers for five variables while they had the lowest score for getting credit score. Interestingly, the average scores of candidates' in getting credit and protecting minority in investors were the highest among the groups. MANOVA results revealed that, membership status has a statistically significant effect on getting electricity, getting credit, and resolving insolvency. In getting electricity and getting credit factors there was a difference between old members and candidates. Old members and new members were different from each other in terms of resolving insolvency. In addition, the effect of status on the resolving insolvency factor was greater than the other variables.

Table 5. Descriptive statistics and MANOVA results

		Old Member	2004 Member	Candidate	p	Partial Eta Square
Starting a business	Mean	90.7	88.6	89.0	0,402	0,061
	Median	92.5	88.2	88.8		
	SD	4.10	4.49	1.83		
Dealing with construction permits	Mean	75.5	68.8	74.3	0,143	0,126
	Median	75.3	67.0	76.1		
	SD	5.49	9.63	13.0		
Getting electricity	Mean	86.6	78.9	74.3	0,049	0,188
	Median	85.4	82.3	73.2		
	SD	6.81	13.4	9.21		
Registering property	Mean	72.5	76.2	71.4	0,646	0,030
	Median	75.1	77.4	71.8		
	SD	12.9	12.3	7.25		
Getting credit	Mean	53.9	65.4	75.0	0,014	0,254
	Median	57.5	70.0	75.0		
	SD	14.8	14.4	7.91		
Protecting minority investors	Mean	66.9	66.2	67.2	0,963	0,003
	Median	68.0	66.0	70.0		
	SD	6.74	7.55	14.0		
Paying taxes	Mean	83.5	82.4	77.7	0,279	0,084
	Median	84.2	81.8	76.7		
	SD	7.55	5.34	8.57		
Trading across borders	Mean	97.4	97.5	94.9	0,235	0,095
	Median	100	100	93.9		
	SD	4.24	4.19	2.35		
Enforcing contracts	Mean	66.2	66.7	64.2	0,848	0,011
	Median	67.8	67.6	66.0		
	SD	8.54	8.79	6.65		
Resolving insolvency	Mean	77.3	62.5	62.4	0,013	0,258
	Median	79.4	59.8	67.0		
	SD	12.9	13.1	13.6		

5.3. Multiple Discriminant Analysis Results

Since the number of groups in the dependent variable was three, two functions were formed in the discriminant analysis (Table 6). The eigenvalue of first function was 1.923, and the canonical correlation was 0.811. In the second function, the eigenvalue was 0.404 and the canonical correlation was 0.536. Eigenvalue is a measure of how efficiently a function discriminant the groups. Although there is not an exact value, values greater than 0.40 are considered good (Kalaycı, 2016). Higher eigenvalue and canonical correlation indicate better performance. The first function's canonical correlation of 0.811 suggests the model explains 65.77% of the variation in the dependent variable, whether a country is a new member, an old member, or a candidate. First function had higher values as expected. Wilks' Lambda is a metric for how successfully each function discriminates cases and the values that are smaller suggest that the function has better discriminatory performance (Sun, Hoffman and Grady, 2007). According to the Wilks' Lambda results, only the first function was useful.

Table 6. Eigenvalues

Function	Eigenvalue	% of Variance	Canonical Correlation	Test of Function(s)	Wilks' Lambda	Sig.
1	1,923	82,7	,811	1 through 2	,244	,022
2	,404	17,3	,536	2	,712	,504

Results showed that EU membership appeared to be affected by resolving insolvency most. After resolving insolvency, getting credit, getting electricity and starting a business were the most effective factors, respectively. On the other hand, registering property, enforcing contracts, and protecting minority investors had almost no effect on EU membership.

The correct classification rate was 87.5% (Table 7). As a result of the analysis, Greece was classified as a new member instead of assigning as old member. Bulgaria and Poland were classified as candidate and Slovenia as old member while they are new member. All candidate countries are correctly classified.

Table 7. Classification Results

		Predicted		
		Old Member	**New Member**	**Candidate**
Actual	**Old Member**	13	1	0
	New Member	1	10	2
	Candidate	0	0	5

In the context of EDBI, it can be said that old members are expected to perform best, while candidate countries are expected to perform relatively poor. However, Greece is in the 30th place among 32 countries and Bulgaria is in the 28th place in terms of EDBI. Therefore, it is hardly surprising that Greece and Bulgaria are classified in a lower group. Despite being ranked 16th, Poland was classified as candidate. This may be due to its poor performance in the Starting business and paying taxes pillars. Among the new member and candidate countries, the only country classified in a better group was Slovenia. According to the results, the pillar that affects the classification of a country as an old member most was resolving insolvency. The fact that Slovenia scored quite well in that pillar (5th out of 32 countries) can explain its classification as an old member.

6. THEORETICAL AND PRACTICAL IMPLICATIONS

EDBI is a recognized benchmark that shows how easy it is to do business in a country. Higher EDBI scores indicate better business environment and this increases domestic and foreign investment opportunities. This has a positive effect on the economies of countries where it is easy to do business. Therefore, as mentioned before, some countries are making efforts to achieve a better score in the index. Ensuring economic cooperation and increasing the level of welfare is one of the objectives of the EU. EU member and candidate countries might have common regulations in economic terms as in many areas. This study presents a novel attempt to define whether EDBI performances of the countries are affected according to EU membership status. According to the results of MANOVA and discriminant analysis, it is seen that the most important factor is resolving insolvency. Moreover, this factor performed best in old members and worst in candidate countries. Policymakers in new members and candidates should prioritize the reforms related to resolving insolvency since this factor makes investors feel safe. Moreover, the factor where members and candidates differ most from each other is paying taxes. This situation makes it difficult to do business in candidate countries and discourages investors. Candidates should diverse their revenues to attract investment and get a better EDBI score. It is obvious that the old members are the most stable, performing the best in terms of EDBI. Nevertheless, old members have also challenged, especially in getting credit factor. Although they performed poorly on this factor, this seems to be a deliberate strategy. Candidates performed best in this factor; however, they still face with problems in EDB. This shows that besides easy access to money, other factors are relatively more important for investors.

The economies with the best ease of doing business score have numerous characteristics in common, including broad usage of electronic systems (World Bank, 2020). From this point of view, it has been understood again how important the existing infrastructures, especially technologic infrastructures of the countries are. Infrastructure deficiencies and a lack of financial resources are disadvantages and problems for certain countries. These might lead the gaps between EU countries and should be taken into account by policy makers. With the onset of the coronavirus pandemic, remote working has become widespread around the world. Public institutions that can be considered more inactive compared to the private sector, have also undergone transformations to adapt to the current situation. This has led to many transactions being done online and facilitated the ease of doing business. Countries that want to perform well in EDB index improve their technological infrastructure and develop them continuously.

7. CONCLUSION

EDBI has been provided yearly cross-country statistics on how governments regulate business, allowing researchers to better understand how regulation influences development (World Bank, 2020). It can be stated that EU member and candidate countries are similar in terms of doing business, along with factors such as the reforms made in the EU membership process and trade openness. There were 32 reforms from 18 countries that made easier to do business while only four reforms made more difficult in EU members and candidates between May 2018 and May 2019. None of the old members has made any complicating reforms, eight of them have implemented facilitating reforms. The country that made the most facilitating reforms with six reforms was Serbia, one of the candidate countries. The purpose of the current study is to highlight the relationship between EU membership and doing business. The data were obtained from the EDBI 2020. MANOVA and Discriminant analysis are conducted in accordance with the aim of the study.

MANOVA results indicated that getting electricity, getting credit, and resolving insolvency scores differ significantly according to EU membership status. Candidate's average score for getting credit was the highest. That's probably because they want to promote their country to attract investment. From the results one can infer that old members are not brave like other countries in lending. When average scores are used, it is seen that the old members showed a better performance in terms of getting electricity and resolving insolvency. Correlation analysis results also confirmed that resolving insolvency differs in old members compared to other groups. Looking deeper into the getting electricity, old members, especially in infrastructure, are quite advantageous compared to other countries. The underlying reason for this could be that the old members had high development and economic stability before. This allowed them to make infrastructure investments earlier. Rule of Law Index gives some insights to explain the higher score old members got in resolving insolvency. The former members seem to have maintained the rule of law while others still have some problems especially the candidates (World Justice Project, 2020).

Discriminant analysis results revealed that resolving insolvency, getting credit, getting electricity, and starting a business are the most effective factors on EU membership, respectively and the overall classification rate was 87.5%. The correct classification rates for old members, new members and candidates were as follows: 92.86%, 76.92%, 100%. Old members were classified correctly, except, Greece. New members were the group with the highest transition between groups. Although North Macedonia and Turkey performed relatively well, the classification of all candidate countries as candidate reveals that these countries need to put more effort.

8. LIMITATIONS AND FUTURE WORK

This study has some limitations. The major limitation of this study is the examining only factors that EDBI consists. Another limitation is that this study is limited to 2020 data only. Future studies might be used more metric factors and investigate countries' progress on the over time. Moreover, the effects of EU membership can be examined more closely by doing so.

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